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December 8, 2000

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DEC 8 2000

VIA HAND DELIVERY

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
TW-A325  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

RM-8658

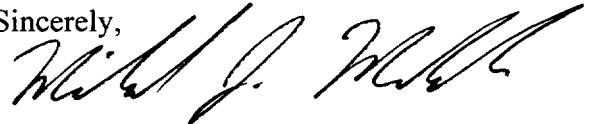
**Re: Request to Reopen the Petition for Rule Making in the Matter of Section 68.4(a) of the Commission's Rules, Hearing Aid-Compatible Telephones**

Dear Ms. Salas:

Enclosed for filing in the above-captioned matter, please find an original and five (5) copies of the Comments of Telecommunications for the Deaf, Inc. in the above-referenced proceeding.

Please acknowledge receipt by date-stamping the enclosed extra copy of this filing and returning it to me in the envelope provided. If you have any questions regarding this filing please contact me at (202) 295-8338.

Sincerely,



Michael J. Mendelson

Enclosures

cc: E. Wendy Austrie

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**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

**RECEIVED**

**DEC 8 2000**

**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY**

In the Matter of )  
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Request to Reopen the Petition for )  
Rule Making in the Matter of )  
Section 68.4(a) of the Commission's Rules, )  
Hearing Aid-Compatible Telephones )

RM Docket No. 8658

**COMMENTS OF  
TELECOMMUNICATIONS FOR THE DEAF, INC.**

Telecommunications for the Deaf, Inc. ("TDI"), by its undersigned counsel, respectfully submits the following comments pursuant to the Federal Communications Commission's ("Commission") Public Notice, released on October 25, 2000, regarding the above-captioned proceeding.<sup>1</sup> TDI supports the request of the Wireless Access Coalition ("WAC") that the Federal Communications Commission ("Commission") reopen the Petition for Rule Making in the Matter of Section 68.4(a) of the Commission's Rules, Hearing Aid-Compatible Telephones ("Petition").

TDI is a national advocacy organization actively engaged in representing the interests of the twenty-nine million Americans who are deaf, hard of hearing, late deafened, and deaf-blind. TDI's mission is to promote equal access to media and telecommunications for the aforementioned constituency groups through consumer education and involvement, technical assistance and consulting, application of existing and emerging technologies, networking and collaboration, uniformity of standards, and

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<sup>1</sup> *Petition for Rule Making in the Matter of Section 68.4(a) of the Commission's Rules, Hearing Aid-Compatible Telephones*, RM Docket No. 8658, Public Notice, released October 25, 2000 ("Notice").

national policy development and advocacy. TDI asserts that only by ensuring equal access will the twenty-nine million Americans who are deaf, hard of hearing, late deafened, and deaf-blind be able to enjoy the opportunities and benefits of the telecommunications revolution to which they are entitled. Furthermore, only by ensuring equal access for all Americans will society benefit from the myriad skills and talents of persons with disabilities.

## **I. INTRODUCTION**

TDI supports the Commission's inquiry into solutions to the compatibility and interference problems presented by the use of hearing aid devices in conjunction with digital wireless telephones. The Commission's leadership is crucial to the development of a solution that allows those Americans who are deaf, hard of hearing, late deafened, and deaf-blind to participate effectively in the increasingly pervasive world of digital wireless technology.

TDI strongly supports the request of the WAC to reopen the Petition for Rule Making in the Matter of Section 68.4 (a) of the Commission's Rules, Hearing Aid-Compatible Telephones. TDI agrees with the WAC that "hearing aid compatibility with wireless telephones is still an ongoing problem."<sup>2</sup> Although the wireless telecommunications industry has made some progress since the filing of the original Petition by the HEAR-IT NOW Coalition in 1995, the problem of interference continues to preclude access to digital wireless telephones for most hearing aid users.

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<sup>2</sup> Comments of Wireless Access Coalition at 2.

## II. THE STATUTORY MANDATE

The Hearing Aid Compatibility Act (“HAC Act”) requires all telephones to “provide internal means for effective use with hearing aids that are designed to be compatible with telephones which meet established technical standards for hearing aid compatibility.”<sup>3</sup> Despite HEAR-IT NOW’s request in 1995, the Commission chose not to revoke the initial statutory exemption for PCS services from the otherwise applicable requirement of hearing aid compatibility.<sup>4</sup> However, the HAC Act also requires the Commission to assess its exemptions periodically and to revoke exemptions if to do so would be in the public interest, a continued exemption would adversely affect hearing-impaired individuals, compliance is technologically feasible, and compliance would not be prohibitively expensive such that the telephones could no longer be successfully marketed.<sup>5</sup>

As the Senate Committee on Commerce, Science, and Transportation (“Senate Committee”) noted in reference to the HAC Act, the standard for revoking exemptions is the same as the standard for granting new exemptions.<sup>6</sup> Furthermore, the Senate Committee explained that an applicant for a new exemption must demonstrate that compliance would be either “technologically infeasible,” which is defined as “impossible or ‘undoable,’” or so costly that the affected service or device could not be successfully marketed.<sup>7</sup> In the five years since the HEAR-IT NOW Petition asked the Commission to revoke the exemption for PCS devices, wireless technology has progressed at an alarming

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<sup>3</sup> 47 U.S.C. § 610(b)(1)(B).

<sup>4</sup> See 47 U.S.C. § 610(b)(2)(A).

<sup>5</sup> See 47 U.S.C. § 610(b)(2)(C).

<sup>6</sup> See S. REP. NO. 100-391, *reprinted in* 1988 U.S.C.C.A.N. 1345.

<sup>7</sup> See *id.*

rate. At the end of the year 2000, compliance is no longer technologically infeasible or prohibitively costly.

Complementing the HAC Act, Section 255 of the Communications Act of 1934, as amended (“the Act”), requires all telecommunications equipment to be “accessible to and usable by individuals with disabilities, if readily achievable.”<sup>8</sup> Therefore, the continued exemption of PCS devices defeats the intent of both the Act and the HAC Act. The Commission has not yet taken the opportunity to review any exemptions under the HAC Act, although the statutory language and legislative history clearly indicates that Congress intended the Commission to do so. TDI submits that it is necessary to reopen the Petition in order to ensure that the increasingly pervasive digital wireless telecommunications technology is equally accessible to all Americans.

### **III. DIGITAL ACCESS AND HEARING AID INTERFERENCE**

Access to digital wireless telecommunications services by persons who need hearing aids has become increasingly important as digital wireless technology has progressed and proliferated. According to the Cellular Telecommunications Industry Association (“CTIA”), there are over 100 million subscribers to wireless services in the United States.<sup>9</sup> Many organizations, including schools, companies, and other organizations, are increasing their use of digital wireless communications systems. Access to digital wireless telecommunications is becoming a prerequisite for many employment opportunities in the new economy and for full participation in daily life. Because the wireless industry has experienced tremendous growth in just a few short

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<sup>8</sup> 47 U.S.C. § 255(b).

<sup>9</sup> See Cellular Telecommunications Industry Association, *Frequently Asked Questions & Fast Facts, General Wireless*, at <http://www.wow-com.com/consumer/faqs/faq-general.cfm#one>.

years, it is imperative that this important method of communication be made accessible and hearing aid compatible to prevent hearing aid users from being left behind in a society where access to communications is so important.

Digital wireless technology presents a number of exciting possibilities for deaf, hard of hearing, late deafened, and deaf-blind individuals, which makes access to this technology all the more vital. For example, an individual may use short messaging service (“SMS”) to type messages on a digital wireless telephone keypad. SMS has the potential to provide a fast and convenient way for deaf, hard of hearing, late deafened, and deaf-blind individuals to communicate directly with others. Digital wireless service also offers the potential for email and Internet access. Wireless data communications systems can allow employees with hearing aids to work in the field and communicate with dispatchers. Such data services could greatly enhance the ability of deaf, hard of hearing, late deafened, and deaf-blind individuals to find employment opportunities and to participate and communicate in the modern telecommunications world. However, without access to the all-important voice communications services of these devices, their use is limited and uneconomical for hearing aid users.

Unfortunately, hearing aid users currently cannot experience the benefits of digital wireless services because of the interference problems. The various wireless systems (*e.g.*, GSM, CDMA, TDMA, iDEN) produce different degrees of interference, and the hearing aids themselves, in turn, are affected differently. Hearing aids worn behind the ear produce more interference in conjunction with digital wireless telephones. Because in-the-ear hearing aid models are smaller and farther away from the telephone’s antenna, it is less likely that the telephone’s antenna will interfere with them. For many

hearing aid users, in-the-ear hearing aids may not be practical alternatives to behind-the-ear aids, because certain hearing problems require the added power of a behind-the-ear hearing aid. The interference caused by digital wireless telephones is, at best, frustrating to a hearing aid user who cannot easily understand what is being said. At worst, the interference renders such telephones completely useless.

The Cellular Telecommunications Industry Association (“CTIA”) has also recognized that all digital wireless telephones will interfere with hearing aids to varying degrees. According to the CTIA, “[b]ecause of the infinite combinations of hearing loss, hearing aids, and types of telephones, there is no single answer” to the question of which type of digital wireless telephone a given hearing aid user should use.<sup>10</sup> These differences lead to confusion among hearing aid users and can often dissuade them from using digital wireless telecommunications services, further precluding them from partaking of technological developments and the corresponding benefits.

Although some assistive devices exist that reduce the amount of interference, such as loopsets or external antenna accessories, they are not helpful to all hearing aid users. The additional cost of purchasing accessories also makes digital wireless service more expensive. In addition, because not all digital wireless telephones will work with all accessories, hearing aid users have a limited choice of telephone models, and often service providers. These factors put hearing aid users at a practical and economic disadvantage, often precluding them from taking part in this important method of communication.

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<sup>10</sup> Cellular Telecommunications Industry Association, *Hard of Hearing and Wireless – FAQs*, at [http://www.wow-com.com/consumer/access/resource/hearings\\_faws.cfm](http://www.wow-com.com/consumer/access/resource/hearings_faws.cfm).

TDI asserts that it is unreasonably burdensome for hearing aid users to bear the economic cost of accessorizing their digital wireless telephones when it is technically and economically reasonable for the digital wireless industry to address the interference problems. Conforming all digital wireless telephones to the HAC Act would ensure that hearing aid users have access to all telephone models and service providers. Such access is critical if hearing aid users are to participate in and benefit from modern digital communications.

#### **IV. PROBLEMS WITH ANALOG DEVICES**

Although hearing aid users can avoid interference problems by turning to analog services, there are numerous disadvantages to this alternative. Analog wireless telecommunications services suffer from occasional static and disconnection. They are not as secure as their digital counterparts, making analog users more susceptible to number fraud and eavesdropping. Analog networks are older and not as well maintained as digital networks and cannot accommodate rapid subscriber growth as well as digital networks can. In addition, antiquated analog wireless services do not offer nearly as many features and do not conserve telephone battery life as well as digital service. Most importantly, analog service is often more expensive than digital service. These sample problems alone present frustrations for hearing aid users who wish to participate in the world of wireless communications.

More importantly, many wireless telecommunications carriers no longer offer analog wireless service. Based on the rapid growth of digital services, as discussed above, it would appear that the majority of analog networks will be phased out in the near future. Furthermore, evidence in the marketplace suggests that the future will be one of



digital wireless telecommunications, while analog will be relegated to the status of obsolete technology. As the Commission has recognized, the digital wireless telecommunications industry has experienced tremendous growth, and a majority of all wireless subscribers use digital service.<sup>11</sup> Limiting individuals who rely on hearing aids to analog wireless telecommunications denies them the ability to participate as full citizens in our technology-oriented society.

## V. CONCLUSION

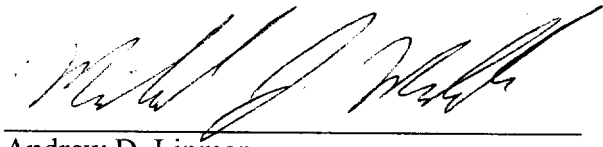
Digital wireless technology is advancing rapidly and promises to offer many benefits to all Americans, including those who are deaf, hard of hearing, late deafened, and deaf-blind. TDI asserts that it is vital, therefore, that the Commission take an active role in ensuring that this technology becomes and remains accessible to all individuals. The lack of accessibility to digital wireless telecommunications services adversely affects hearing aid users. Therefore, revocation of the PCS exemption under the HAC Act is in the public interest, technologically feasible, and economically viable. The continued exemption of PCS is contrary to both the HAC Act and Section 255 of the Communications Act of 1934, as amended.

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<sup>11</sup> See *In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Fifth Report, at 13 (rel. Aug. 18, 2000).

TDI is encouraged by the Commission's willingness to inquire into the possibility of reopening the Petition for Rule Making in the Matter of Section 68.4 (a) and urges the Commission to continue its efforts to ensure that the needs of deaf, hard of hearing, late deafened, and deaf-blind Americans are protected.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Michael J. Mendelson", is written over a horizontal line.

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